

Amendments to the Claims:

1 - 27. (canceled)

28. (currently amended) Apparatus for collecting solids settling at the bottom of a liquid reservoir, said apparatus comprising

at a hollow suction head, said suction head comprising a hollow body having an upper side and a lower side, said lower side defining a mouth,

at least one outlet duct extending from said hollow suction head,

a collector communicating with said at least one outlet duct for collecting materials from said suction head, said collector comprising a housing defining a collection chamber of substantially circular cross-section and buoyant support means for providing buoyant support to said housing, said housing including at least one entry port through which liquids and solids entrained in said liquid can flow from said suction head into the chamber via said at least one outlet duct, and

means for introducing air into said suction head to create a suction pressure in said suction head to cause in use liquid and solids adjacent said mouth to pass along said at least one outlet duct into said at least one entry port for collection in said chamber, and there being
guide means in said chamber adjacent said entry port for directing liquids and entrained solids from said outlet duct in a generally tangential direction into said chamber.

29. (previously presented) Apparatus as claimed in claim 28 wherein said suction head is of domed shape and includes on said upper side one or more outlets for connection to said outlet duct or ducts.

30. (previously presented) Apparatus as claimed in claim 28 wherein said means for introducing air into the suction head comprises an air diffuser located within the said suction head.

31. (canceled)

32. (previously presented) Apparatus as claimed in claim 28 wherein said suction head includes means to displace solids from the bottom of the liquid reservoir.

33. (previously presented) Apparatus as claimed in claim 28 and including skids at opposite ends of said suction head for supporting said suction head.

34 - 38. (canceled)

39. (currently amended) Apparatus as claimed in claim 28 [[36]] and including one or more outlet ports or openings in said housing spaced from said entry port for passage of liquid out of the chamber.

40. (currently amended) Apparatus as claimed in ~~claims~~ claim 28 [[34]] wherein the collector housing has an upper periphery and wherein said buoyant support means comprise a buoyancy member located around at least portion of said upper periphery.

41. (previously presented) Apparatus as claimed in claim 40 wherein said buoyancy member comprises a hollow chamber for containing air or one or more buoyant bodies.

42 - 44. (canceled)

45. (currently amended) Apparatus as claimed in claim 52 [[44]] wherein ~~and wherein~~ said reversing means includes stop means associated with said cable, said stop means being cooperable with one or more limit switches for causing automatic reversing of said winch.

46. (currently amended) A method of cleaning a liquid reservoir, said method including the steps of

providing apparatus comprising a hollow suction head adapted to collect solids settling at the bottom of a liquid reservoir, said suction head having an upper side and a lower side, said lower side defining a mouth, at least one outlet duct extending from said hollow suction head, and a collector for receiving and collecting materials from said suction head via

said at least one outlet duct, said collector further including means for collecting materials at or adjacent the surface of liquid in said reservoir, and means for buoyantly supporting said collector at or adjacent the surface level of liquid in said reservoir,

introducing air into said suction head to create a suction pressure in said suction head to cause settling solids adjacent said mouth to pass along said at least one outlet duct to said collector, and

moving said apparatus in said reservoir whereby settling solids and solids floating in or adjacent the surface of liquid in the reservoir may be collected simultaneously.

47 - 48. (canceled)

49. (new) Apparatus for collecting solids settling at the bottom of a liquid reservoir, said apparatus comprising

a suction head assembly including a hollow suction head and skids at opposite ends of said suction head, said suction head comprising a hollow body having an upper side and a lower side, said lower side defining a mouth,

at least one outlet duct extending from said hollow suction head,

a collector communicating with said at least one outlet duct for collecting materials from said suction head, said collector comprising a housing defining a collection chamber and buoyant support means for providing buoyant support to said housing,

a pair of link arms extending substantially parallel to each other and pivotally connected at opposite ends to said suction head assembly and said collector respectively, said link arms permitting the height of said suction head to adjust relative to said collector, and

means for introducing air into said suction head to create a suction pressure in said suction head to cause in use liquid and solids adjacent said mouth to pass along said at least one outlet duct for collection in said collector.

50. (new) Apparatus as claimed in claim 49 and including a winch and a cable coupled to said apparatus for moving the apparatus in the liquid reservoir, and means for reversing said winch whereby said apparatus can traverse in opposite directions in the liquid reservoir.

51. (new) Apparatus as claimed in claim 50 wherein said cable includes stop means adapted to cooperate with one or more switch means for reversing said winch.

52. (new) Apparatus for collecting solids settling at the bottom of a liquid reservoir, said apparatus comprising

- a hollow suction head, said suction head comprising a hollow body having an upper side and a lower side, said lower side defining a mouth,

- at least one outlet duct extending from said hollow suction head,

- a collector communicating with said at least one outlet duct for collecting materials from said suction head, said collector comprising a housing defining a collection chamber and buoyant support means for providing buoyant support to said housing,

- link means interconnecting said suction head and said collector, said link means permitting the height of said suction head to adjust relative to said collector,

- means for introducing air into said suction head to create a suction pressure in said suction head to cause in use liquid and solids adjacent said mouth to pass along said at least one outlet duct for collection in said collector, and a winch and cable coupled to said apparatus for moving the apparatus in the liquid reservoir, and

- means for reversing said winch whereby said apparatus can traverse in opposite directions in the liquid reservoir.

53. (new) Apparatus for collecting solids settling at the bottom of a liquid reservoir, said apparatus comprising

- a suction head assembly including a suction head and skids which support said suction head for movement over a floor surface of the reservoir, said suction head comprising an elongated hollow body having an upper side and a lower side, said lower side defining a mouth,

- at least one outlet duct extending from said hollow suction head,

- a floating collector comprising a housing defining a collection chamber and buoyant means for buoyantly supporting said housing adjacent the surface of liquid in the reservoir, said housing including at least one entry port communicating with said at least one outlet duct,

means for introducing air into said suction head to create a suction pressure in said suction head to cause in use liquid and solids adjacent said mouth of said suction head to pass along said at least one outlet duct into said at least one entry port for collection in said collection chamber of said collector,

pivotal link means interconnecting said collector and suction head assembly, and means for moving said apparatus in said liquid reservoir, said pivotal link means permitting the height of said suction head to vary relative to said collector when following the floor surface of said reservoir upon movement of said apparatus in said reservoir.

54. (new) Apparatus as claimed in claim 53 wherein said pivotal link means comprise a pair of spaced link arms extending substantially parallel to each other and pivotally connected at opposite ends to said suction head assembly and said collector respectively.

55. (new) Apparatus as claimed in claim 53 wherein said moving means comprises a winch and including means for automatically reversing the operation of said winch to enable the apparatus to traverse in opposite directions in said reservoir.

56. (new) Apparatus as claimed in claim 55 wherein said moving means includes a cable coupled to said winch and said collector or said suction head assembly and stop means on said cable adapted to cooperate with one or more switch means for reversing said winch.

57. (new) Apparatus as claimed in claim 53 wherein collector housing has an upper periphery surrounding an upper open end of said housing and wherein said buoyant support means comprise a buoyancy member located around at least portion of said upper periphery.

58. (new) Apparatus as claimed in claim 53 wherein said chamber includes a lower frustoconical sump.